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RAW SEQUENCE LISTING   DATE: 09/12/2002
PATENT APPLICATION: US/09/870,406A   TIME: 15:28:43

Input Set : A:\407T-907720US.txt
Output Set: N:\CRF4\09122002\I870406A.raw

```
     3 <110> APPLICANT: LAGARIAS, JOHN
     4       KOICHI, TAKAYUKI
     5       FRANKENBERG, NICOLE
     6       GAMBETTA, GREGORY
     7       MONTGOMERY, BERONDA
     9 <120> TITLE OF INVENTION: HY2 FAMILY OF BILIN REDUCTASES
    11 <130> FILE REFERENCE: 407T-907720US
    13 <140> CURRENT APPLICATION NUMBER: US 09/870,406A
C--> 14 <141> CURRENT FILING DATE: 2002-09-04
    16 <150> PRIOR APPLICATION NUMBER: 60/271,758
    17 <151> PRIOR FILING DATE: 2001-02-26
    19 <150> PRIOR APPLICATION NUMBER: 60/210,286
    20 <151> PRIOR FILING DATE: 2000-06-08
    22 <160> NUMBER OF SEQ ID NOS: 57
    24 <170> SOFTWARE: PatentIn version 3.0
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    28 <212> TYPE: DNA
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    32 <223> OTHER INFORMATION: Primer
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C--> 41 <213> ORGANISM: Artificial
    43 <220> FEATURE:
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    46 <400> SEQUENCE: 2
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    55 <220> FEATURE:
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    58 <400> SEQUENCE: 3
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    63 <211> LENGTH: 20
    64 <212> TYPE: DNA
C--> 65 <213> ORGANISM: Artificial
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        68 <223> OTHER INFORMATION: Primer
        70 <400> SEQUENCE: 4
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        75 <211> LENGTH: 22
        76 <212> TYPE: DNA
C--> 77 <213> ORGANISM: Artificial
        79 <220> FEATURE:
        80 <223> OTHER INFORMATION: Primer
        82 <400> SEQUENCE: 5
        83 gctttcagaa atcagacctc aa                                 22
        86 <210> SEQ ID NO: 6
        87 <211> LENGTH: 21
        88 <212> TYPE: DNA
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        91 <220> FEATURE:
        92 <223> OTHER INFORMATION: Primer
        94 <400> SEQUENCE: 6
        95 ctggtgtggt tgatcgaatc t                                 21
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        99 <211> LENGTH: 20
       100 <212> TYPE: DNA
C--> 101 <213> ORGANISM: Artificial
       103 <220> FEATURE:
       104 <223> OTHER INFORMATION: Primer
       106 <400> SEQUENCE: 7
       107 ctgccaagct tcatttggtt                                    20
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       111 <211> LENGTH: 20
       112 <212> TYPE: DNA
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       115 <220> FEATURE:
       116 <223> OTHER INFORMATION: Primer
       118 <400> SEQUENCE: 8
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       124 <212> TYPE: DNA
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       130 <400> SEQUENCE: 9
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       136 <212> TYPE: DNA
C--> 137 <213> ORGANISM: Artificial
       139 <220> FEATURE:
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RAW SEQUENCE LISTING   DATE: 09/12/2002
PATENT APPLICATION: US/09/870,406A   TIME: 15:28:44

Input Set : A:\407T-907720US.txt
Output Set: N:\CRF4\09122002\I870406A.raw

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      151 <220> FEATURE:
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      154 <400> SEQUENCE: 11
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      163 <220> FEATURE:
      164 <223> OTHER INFORMATION: Primer
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      170 <210> SEQ ID NO: 13
      171 <211> LENGTH: 20
      172 <212> TYPE: DNA
C--> 173 <213> ORGANISM: Artificial
      175 <220> FEATURE:
      176 <223> OTHER INFORMATION: Primer
      178 <400> SEQUENCE: 13
      179 aatgatgcat ggtgttggtg                                      20
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      183 <211> LENGTH: 20
      184 <212> TYPE: DNA
C--> 185 <213> ORGANISM: Artificial
      187 <220> FEATURE:
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      190 <400> SEQUENCE: 14
      191 gctcgaggaa aagtcatcca                                      20
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      196 <212> TYPE: DNA
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      199 <220> FEATURE:
      200 <223> OTHER INFORMATION: Primer
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       223 <220> FEATURE:
       224 <223> OTHER INFORMATION: Primer
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       236 <223> OTHER INFORMATION: Primer
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       256 <212> TYPE: DNA
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       259 <220> FEATURE:
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       268 <212> TYPE: DNA
C--> 269 <213> ORGANISM: Artificial
       271 <220> FEATURE:
       272 <223> OTHER INFORMATION: Primer
       274 <400> SEQUENCE: 21
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C--> 281 <213> ORGANISM: Artificial
       283 <220> FEATURE:
       284 <223> OTHER INFORMATION: Primer
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          RAW SEQUENCE LISTING                    DATE: 09/12/2002
          PATENT APPLICATION:  US/09/870,406A     TIME: 15:28:44

          Input Set : A:\407T-907720US.txt
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     295 <220> FEATURE:
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     298 <400> SEQUENCE: 23
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     304 <212> TYPE: DNA
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     307 <220> FEATURE:
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     310 <400> SEQUENCE: 24
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     316 <212> TYPE: DNA
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     319 <220> FEATURE:
     320 <223> OTHER INFORMATION: Primer.
     322 <400> SEQUENCE: 25
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     326 <210> SEQ ID NO: 26
     327 <211> LENGTH: 37
     328 <212> TYPE: DNA
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     332 <223> OTHER INFORMATION: Primer
     334 <400> SEQUENCE: 26
     335 atagttagcg gccgcttatt ctgggagatc aaataac                   37
     338 <210> SEQ ID NO: 27
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     340 <212> TYPE: DNA
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     349 aagggacgaa aaaatcccac tccatggcgg agaacgtcgg ctttgtcaaa tgcttcctca   120
     351 agggcgttgt cgagaaaaat tcctaccgta agctggttgg caatctctac tttgtctaca   180
     353 gtgccatgga agaggaaatg gcaaaattta aggaccatcc catcctcagc cacatttact   240
     355 tccccgaact caaccgcaaa caaagcctag agcaagacct gcaattctat tacggctcca   300
     357 actggcggca agaagtgaaa atttctgccg ctggccaagc ctatgtggac cgagtccggc   360
     359 aagtggccgc tacggcccct gaattgttgg tggcccattc ctacacccgt tacctggggg   420
     361 atctttccgg cggtcaaatt ctcaagaaaa ttgcccaaaa tgccatgaat ctccacgatg   480
     363 gtggcacagc tttctatgaa tttgccgaca ttgatgacga aaaggctttt aaaaatacct   540
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 09/12/2002
PATENT APPLICATION: US/09/870,406A   TIME: 15:28:45

Input Set : **A:\407T-907720US.txt**
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Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27
Seq#:28,29,30,31